

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-30. (Canceled)

31. (New) A controller device for a water treatment plant, comprising:

a controller adapted to read a unique identifier of a filter module and a fluid quality sensor reading from a fluid quality sensor;

a pump configured to pump fluid through the filter module;

said controller being configured to control the pump to continue pumping if, during a pumping operation, said fluid quality sensor gives a first indication indicating that said filter module is performing adequately;

said controller also being configured to control the pump to continue pumping until a predetermined quantity of fluid has been pumped if, during a pumping operation, said fluid quality sensor gives a second indication indicating that said filter module will fail imminently, but thereafter to control the pump to not pump fluid if a same unique identifier is read as when said second indication was received by it or by another similar controller.

32. (New) A controller device as in claim 31, wherein said controller includes a data carrier reader to read said unique identifier stored in a data carrier attached to said filter module.

33. (New) A controller device as in claim 31, wherein said controller is configured to control the pump to not pump fluid if a same unique identifier is read as

when said second indication was received by it or by another similar controller by comparing a read identifier with a stored identifier in said controller or one read by said controller from a database of unique identifiers.

34. (New) A controller device for a water treatment plant, comprising:

a controller adapted to read a unique identifier of a connected filter module and a water quality from a fluid quality sensor;

said controller being configured to continue a pure water generation using the filter module when said fluid quality sensor gives a first indication indicating that said filter module is performing adequately;

said controller also being configured to continue the pure water generation until a predetermined quantity of fluid has been pumped if, during the pure water generation, said fluid quality sensor gives a second indication indicating that said filter module will fail imminently, and thereafter to halt pumping until said filter module is exchanged.

35. (New) A controller device as in claim 34, wherein said controller includes a data carrier reader to read said unique identifier stored in a data carrier attached to said filter module.

36. (New) A controller device as in claim 34, wherein said controller is configured to not pump fluid if a same unique identifier is read as when said second indication was received by it or by another similar controller by comparing a read identifier with a stored identifier in said controller or one read by said controller from a database of unique identifiers.

37. (New) A controller device for a water treatment plant, comprising:

a controller adapted to read a unique identifier of a filter module and a fluid quality sensor reading from a fluid quality sensor; and

a pump;

said controller being configured to continue purifying water during a purifying operation with said filter module when said fluid quality sensor gives a first indication indicating that said filter module is performing adequately;

said controller being configured to continue purifying water with said filter module until a predetermined quantity of fluid has been pumped if, during the purifying operation, said fluid quality sensor gives a second indication indicating that said filter module will fail imminently;

said controller being configured to either record an identifier read from said filter module in a list of used filter modules or program a data carrier thereof with a token indicating that said filter module is used; in either case, said controller being configured to thereafter not pump fluid if the same filter module's data carrier is later read by said controller such that a reuse of said filter module is prevented.

38. (New) A water treatment plant comprising:

a filter module including first and second filters connected in series and connectable to a supply of fluid;

a pump;

a controller with a fluid quality sensor connected thereto;

said fluid quality sensor being configured to detect a quality of fluid between said first and second filters;

a filter module detector connected to said controller and configured to uniquely detect a filter module connected to said pump;

said controller being configured to control said pump responsively to a signal from said fluid quality sensor and said filter module detector;

said controller being configured to control the pump to continue pumping if, during a pumping operation, said fluid quality sensor gives a first indication;

said controller also being configured to control the pump to continue pumping until a predetermined quantity of fluid has been pumped if, during a pumping operation, said fluid quality sensor gives a second indication, and thereafter to control the pump to not pump fluid until said filter module is replaced with a different one not corresponding to said unique one.

39. (New) A water treatment plant as in claim 38, wherein said first and second filters are deionizing filters and said fluid quality sensor is a conductivity sensor.

40. (New) A water treatment plant as in claim 38, wherein said filter module detector is a reader for a data carrier.

41. (New) A water purification plant for preparing treatment fluid for use in extracorporeal blood treatment, comprising:

a resistivity monitor that is configured to shut a pump down when resistivity falls below a predetermined conductivity;

a filter including first and second deionization stages;

said resistivity monitor being positioned to detect a water quality between said first and second deionization stages, the first stage having a larger capacity than said second stage;

whereby, when said resistivity monitor detects a low resistivity and thereby breakthrough of contaminants and a consequent need for replacement of at least the first deionization stage, said second deionization stage is able to continue to filter so as to provide continued filtration for a time after breakthrough of said first deionization stage.

42. (New) A water purification plant as in claim 41, wherein said predetermined conductivity is about 2 megohms.

43. (New) A water purification plant for preparing treatment fluid for use in extracorporeal blood treatment, comprising:

a replaceable deionizing filter module including a deionizing filter having first and second filter portions, configured such that water to be filtered flows first through said first portion and then through said second portion;

a resistivity sensor located between said first and second filter portions and configured to measure a resistivity of water flowing from said first portion to said second portion; and

a controller configured to indicate an expiration of said replaceable deionizing filter module when said resistivity sensor indicates a predefined value.

44. (New) A water purification plant as in claim 43, wherein said resistivity sensor is a part of said replaceable deionizing filter so as to be replaced therewith.

45. (New) A water purification plant for preparing treatment fluid for use in extracorporeal blood treatment, comprising:

a replaceable deionizing filter module including a deionizing filter having first and second filter portions, configured such that water to be filtered flows first through said first portion and then through said second portion;

said first portion including separate beds of strong base anion and strong acid cation;

said second portion including a mixed bed of anion and cation; and

a resistivity sensor located between said first and second filter portions and configured to measure a resistivity of water flowing from said first portion to said second portion.

46. (New) A water purification plant as in claim 45, further comprising a controller configured to indicate an expiration of said replaceable deionizing filter module when said resistivity sensor indicates a predefined value.

47. (New) A fluid container device, comprising:

a sealed sterilized container with a conductivity sensor in communication with an interior of said container;

at least a first sealed connector at the end of a first line adapted for adding fluid to said container,

said first sealed connector having a second connector inline therewith;

said second connector being configured to close said first line when said second connector is disconnected from said first connector such that said first connector may be left attached to a mating external connector when said sealed sterilized container is removed from said first connector and said closed first line provides a sterile seal to said mating external connector.

48. (New) A fluid container device as in claim 47, wherein said first connector is non-reopenable.

49. (New) A fluid container device as in claim 47, wherein said first connector is configured such that said first line is closed automatically when said second connector is removed from said first connector.

50. (New) A blood treatment apparatus, comprising:

at least one controller having a data carrier writer;

a station on said controller adapted to receive empty containers, each container having a data carrier attached thereto to hold an indicator of a date that the respective container was filled with purified water;

a water purification device configured to fill a first empty container with purified water;

said station being configured to write information indicating a date and time of filling of the first container on said data carrier attached to said first container;

said at least one controller having a data carrier reader; and

a blood treatment device that uses purified water from filled containers;

wherein said controller is configured to read said data carrier attached to said first container and to prevent blood treatment operation or proceed therewith responsively to the indicator read therefrom.

51. (New) A blood treatment apparatus as in claim 50, wherein said blood treatment device is configured to perform renal replacement therapy.

52. (New) A treatment plant for preparing purified water for medical use, comprising:

a controller having a data carrier reader; and

a station on said controller adapted to receive filter modules for purifying water, each filter module having a respective data carrier with a unique identifier;

said controller being configured to read a unique identifier from a respective data carrier and compare the read unique identifier, when a filter module is received by said station, to at least one other identifier and to prevent a water preparation operation or proceed with a water preparation operation responsively to a result of said comparison.

53. (New) A treatment plant as in claim 52, wherein said at least one other identifier is included in a list of previously used filter module identifiers, whereby reuse of filter modules is prevented.

54. (New) A treatment plant for preparing purified water for medical use, comprising:

a water purification device; and

a controller configured to read data carriers on filter modules attachable to said water purification device, said filter modules having permanently attached data carriers carrying status information for each filter module;

said controller being configured to read the status information from the data carrier on a first filter module when attached to be consumed by said water purification device to purify water;

said controller receiving information from a sensor in the first filter module indicating a contaminant breakthrough, said controller being further configured to store an updated status indicating that the first filter module has been used to its data carrier;

said controller being further configured to prevent the use of said first filter module if said status indicated by the data carrier thereof indicates said first filter module was previously used.

55. (New) A medical material preparation device, comprising:

a controller having a data carrier reader; and

a station on said controller adapted to receive consumable elements required for preparing a medical material used for medical treatment, each element having a respective data carrier with a unique identifier,

said controller being configured to read the unique identifier from the respective data carrier and to compare the read unique identifier, when a consumable element is received by said station, to at least one other identifier and to prevent a preparation operation or proceed with a preparation operation responsively to a result of said comparison.

56. (New) A medical material preparation device, comprising:

a controller having a data carrier reader;

a medical material preparation component that consumes consumable elements attached thereto and generates medical materials; and

a station on said controller adapted to receive said consumable elements required for preparing said medical materials;

each consumable element having a respective data carrier that indicates whether said particular consumable element has ever been used, either by comparing a unique identifier stored by the respective data carrier to a list of previously used consumable elements or by storing a programmable indicator indicating that said consumable element has been previously used;

said controller being configured to either read the unique identifier of the particular consumable element and compare the read unique identifier from the respective data carrier to a list of identifiers of previously used consumable elements or programming the respective data carrier to indicate previous use, automatically upon connection of the particular consumable element in said station;

said controller being further configured to prevent a preparation operation or proceed with a preparation operation depending on whether the respective data carrier indicates that the particular consumable element had been previously used.

57. (New) A medical material preparation device as in claim 56, wherein said controller is further configured to either store a read unique identifier in the list of identifiers of previously used consumable elements or to store an indication that the particular consumable element has been previously used upon detecting an expiration of the particular consumable element.

58. (New) A medical material preparation device as in claim 57, wherein the consumable elements have contaminant breakthrough detectors and said controller detects an expiration of the particular consumable element by detecting a breakthrough of contaminant responsively to one of said contaminant breakthrough detectors.

59. (New) A medical material preparation device, comprising:

a controller having a programmable data carrier reader;

a medical material preparation component that consumes consumable elements attached thereto and generates medical materials; and

a station on said controller adapted to receive said consumable elements required for preparing said medical material;

each consumable element having a respective data carrier that stores data indicating if the particular consumable element has been previously used,

said controller being configured to store an indication in the respective data carrier that the particular consumable element has been previously used by automatically exchanging data therewith when the particular consumable element is connected for use in said medical material preparation component and an expiration of the particular consumable element is detected;

said controller being further configured to prevent a preparation operation when the particular consumable element is attached depending on whether the respective data carrier

attached thereto contains an indication that the particular consumable element has been previously used.

60. (New) A medical material preparation device, comprising:

a controller having a data carrier reader;

a medical material preparation component that consumes consumable elements attached thereto and generates medical materials; and

a station on said controller adapted to receive said consumable elements required for preparing said medical material;

each consumable element having a respective data carrier that stores a unique identifier, which uniquely identifies the particular consumable element,

said controller being configured to read the unique identifier of the particular consumable element and compare the read unique identifier from the respective data carrier of the particular consumable element, when the particular consumable element is received by said station, to stored identifiers in a list of previously used consumable elements;

said controller being further configured to store said read unique identifier in said list when an expiration of the particular consumable element is detected;

said controller also being configured to prevent a preparation operation using the particular consumable element when the read unique identifier of the particular consumable element is the same as an identifier stored in said list.

61. (New) A medical material preparation device, comprising:

a controller having a data carrier reader;

a station on said controller adapted to receive consumable elements required for preparing a medical material used for medical treatment, each consumable element having a respective data carrier with a unique identifier,

said controller being configured to read the unique identifier from the respective data carrier and to compare the read unique identifier, when a particular consumable element is received by said station, to at least one other identifier and to prevent a preparation operation or proceed with a preparation operation responsively to a result of said comparison; and

a water purification component,

wherein said medical material is purified water generated by said water purification component, each consumable element includes a container adapted to receive purified water from said water purification component, and said at least one other identifier is stored in a list of identifiers of previously used containers, whereby a reuse of a used container is prevented.